Mathematics in the EYFS

In the EYFS at Springvale we aim to support everyone to reach their potential by living out our ethos of PLAY TOGETHER LEARN TOGETHER ACHIEVE TOGETHER. We deliver our curriculum through themes, and use a core text as a ‘hook’ to introduce our learning for that term. We plan six topics each year, on a two-year cycle, through which the children learn skills from many areas of the curriculum; PSHE, literacy, mathematics, science, history, geography, physical education, music, art and design and R.E.

At Springvale we believe that developing a **strong grounding in number** is essential so that all children develop the necessary **building blocks** to excel mathematically. As the children progress through their milestones they should be able to **count confidently**, develop a deep understanding of the **numbers to 10**, the **relationships between** them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using **manipulatives,** including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which **mastery of mathematics** is built. In addition, it is important to provide **rich opportunities for children to develop their spatial reasoning** skills across all areas of mathematics including shape, space and measures. We want all children to **develop positive attitudes and interests in mathematics**, look for **patterns and relationships**, spot **connections, ‘have a go’**, **talk to adults and peers** about what they notice and not be afraid to make mistakes.

**Nursery Milestones for Understanding Number**

**I will recognise and understand numbers 1 2 3 4 & 5**

**Milestone 1**: I show an interest in number and show counting like behaviour as I play.

**Milestone 2**: I count in everyday contexts, sometimes skipping numbers, e.g., 1 2 4 5

**Milestone 3**: I can say one number for each item in order, e.g. 1 2 3 4 5

**Final Milestone**: I can link numerals and amounts, showing the right number of objects to match the numeral, eg 5 pencils in a pot

**FS2 Milestones for Understanding Number**

**I will recognise and understand number to 10**

**Milestone 1**: I can link numerals and amounts, showing the right number of objects to match the numeral 1-10. I can subitise to 5.

**Milestone 2**: I can say one more or one less than a number to 10, recall number bonds and double facts to 5 and subitise to 10.

**Milestone 3**: I have a deep understanding of number to 10. I can automatically recall number bonds to 5 and some number beonds to 10, including double facts.

Vocabulary linked to Understanding Number

Number zero, one, two...to twenty & beyond, teen numbers, none, how many…? , count, count (up) to, count on (from, to), count back (from, to), subitise

Place Value the same number as, more, larger, bigger, greater, fewer, smaller, less, fewest, smaller, less, fewest, smallest, least, most, biggest, largest, greatest, one more, one less, compare, order, size, first, second, third….last, before, after, next

Estimating guess how many….?, estimate, nearly, close to, about the same as, just over, just under, too many, too few, enough

Calculation add, more, and, make total, altogether, double, one more, how many more to make…?, take away, how many are left/left over? How many have gone?, one less

Multiplication and Divison share/sharing, half/halving

Fractions parts of a whole, half

**Nursery Milestones for Shape, Space and Measure**

**I am beginning to understand and use the vocabulary associated with shape, space & measures.**

**Milestone 1:** I show interest in and can talk about the shapes I am working with and can choose appropriate shapes when building a model or creating an image with shapes.

**Milestone 2:** I can talk about how shapes can be combined to make new shapes.

**Milestone 3:** I can recognise a simple pattern.

**Final Milestone:** I can use positional vocabulary and use appropriate words when comparing the size, length, weight or capacity of objects.

**FS2 Milestones for Shape, Space and Measure**

**I will recognise and understand number to 10**

**Milestone 1**: I can link numerals and amounts, showing the right number of objects to match the numeral 1-10. I can subitise to 5.

**Milestone 2**: I can say one more or one less than a number to 10, recall number bonds and double facts to 5 and subitise to 10.

**Milestone 3**: I have a deep understanding of number to 10. I can automatically recall number bonds to 5 and some number beonds to 10, including double facts.

Shape, Space & Measure

**Measure** Size, compare, guess, estimate, enough, not enough, too much, too little, too many, too few nearly, close to, about the same as, just over, just under.

**Length** long, short, tall high, low, wide, narrow, thick, thin longer, shorter, taller, higher … and so on longest, shortest, tallest, highest … and so on far, near, close.

**Weight** weigh, weighs, balances, heavy, light, heavier than, lighter than, heaviest, lightest scales.

**Capacity** Full, empty, half full holds, container.

**Time** days of the week, Monday, Tuesday …, week, birthday, holiday, morning, afternoon, evening, night, bedtime, dinner, time, playtime, today, yesterday, tomorrow, before, after, next, last, now, soon, early, late, quick, quicker, quickest, quickly slow, slower, slowest, slowly, old, older, oldest, new, newer, newest, takes longer, takes less time,

**Money** Coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay.

**Properties of shape** shape, pattern, flat, curved, straight, round, hollow, solid, sort, make, build, draw, size, bigger, larger, smaller, symmetrical pattern, repeating pattern, match. 2-D shapes corner, side, rectangle (including square), circle, triangle. 3-D shapes face, edge, vertex, vertices, cube, pyramid, sphere, cone.

**Position and direction** position over, under, above, below, top, bottom, side on, in, outside, inside, around, in front, behind front, back, beside, next to, opposite, apart, between, middle, edge, corner, direction, left, right, up, down, forwards, backwards, sideways, across, next, to, close, near, far

long, through, to, from, towards, away, from, movement, slide, roll, turn, stretch, bend

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| CYCLE A | Autumn 1 | | Autumn 2 | | Spring 1 | Spring 2 | | Summer 1 | | | Summer 2 | |
| Daily Skills | Maths should not only be taught during specific maths sessions but wherever possible throughout the day. The following should be utilised to support maths teaching:  Days of the week song and talking about the day  General counting e.g. counting how many bananas there are in the fruit box.  Counting songs  Use of ordinal numbers e.g. “Sam line up first, Lilly line up second…”  Maths games such as track counting games  Noticing maths in the environment e.g. asking children what they notice about a tree. They may say it is tall, has circles on etc.  Incorporating maths in areas of continuous provision wherever possible e.g. an activity that matches numeral to quantity in the finger gym area.  Incorporating maths in daily routines e.g. during registration time. If there are 3 children absent the children clap 3 times. Having labels on pencil pots with a representation of a number to show how many pencils go in that pot during tidy up time. Different representations of number on the ‘how many children can play here’ posters. | | | | | | | | | | | |
| **FS1 Half-Termly Focus based on guidance from Master the Curriculum** | Autumn 1  number songs  colours  matching  sorting | Autumn 2  number songs  number 1  number 2  pattern | | Spring 1  number songs  number 3  number 4  number 5 | | | Spring 2  number songs  height & length  mass  capacity | | | Summer 1  more/fewer  one more  one less  2d shape  3d shape | | Summer 2  number composition  night and day  positional language |
| **FS2 Termly Number Focus** | **Autumn Term**  Match and Sort  Compare Amounts  Representing 1 2 & 3  Comparing 1 2 & 3  Composition of 1 2 & 3  Representing Numbers to 5  One More & Less | | | **Spring Term**  Zero  Comparing Numbers to 5  Composition of 4 & 5  6 7 8  Making Pairs  Combining 2 groups  9 & 10  Comparing Numbers to 10  Bonds to 10 | | | | | **Summer Term**  Building Numbers beyond 10  Counting Patterns beyond 10  Adding More  Taking Away  Doubling  Sharing & Grouping  Even and Odd  Deeping Understanding  Patterns and Relationships | | | |
| **FS2 Termly Focus**  **Number Patterns** | **Autumn Term**  Compare Size, Mass & Capacity  Exploring Pattern  Circles and Triangles  Positional Language  Shapes with 4 sides  Time | | | **Spring Term**  Compare Mass Compare Capacity  Length & Height  Time  3D Shape  Pattern | | | | | **Summer Term**  Spatial Reasoning 1-4  Match, Rotate, Manipulate  Compose and Decompose  Visualise & Build  Mapping | | | |